CELRL-OP-FW
Application LRL-2007-225-sew

MEMORANDUM FOR RECORD

SUBJECT: Department of the Army (DA) Environmental Assessment and Statement of Finding for Above-Numbered Permit Application

This document constitutes the Environmental Assessment, 404(b)(1) Guidelines Evaluation, Public Interest Review, and Statement of Findings.

1. Application as described in the public notice issued August 16, 2010.

   APPLICANT: Triad Mining, Inc.

   WATERWAY & LOCATION: This project is located in waters that are tributaries to Pollard Ditch, Indian Creek, and Maria Creek, and in wetlands adjacent to these tributaries in Knox County, Indiana

   LATITUDE & LONGITUDE: Latitude North: 38.8671°
   Longitude West: 87.2744°

   PROJECT PURPOSE

   Basic: The basic purpose is to extract coal.

   Overall: The overall purpose is to relocate wetlands and streams for the continuation of an existing surface coal mine. The proposed surface coal mine, which is authorized under the Surface Mining Control and Reclamation Act (SMCRA), Indiana Department of Natural Resources (IDNR) Permit No.'s S-311, S-351, S-358, as well as various amendments and Incidental Boundary Revisions (IBR's), would require the placement of fill material into "waters of the United States (U.S.)" located within the West Fork White River 8-digit Hydrologic Unit Code (HUC) watershed. The estimated remaining life of the surface mine is 12 years. However, there will be underground mining operations ongoing for a substantial time following completion of surface impacts so the existing processing plant will remain in place and in operation.

   Water Dependency Determination: The proposed activity does not require siting in a special aquatic site and therefore is not water dependent.

   PROPOSED WORK:

   A portion of the work has been completed without DA authorization. A violation of the Clean Water Act (CWA) was documented, and the U.S. Environmental Protection Agency (USEPA) pursued a violation that culminated with the assessment of a civil penalty as well as stream and wetland mitigation requirements to offset unauthorized losses to aquatic resources. The proposed project area is a 9,864.6-acre area that is being

reviewed as the Triad Mining, Inc., Freelandville Complex by the Indiana Department of Natural Resources (IDNR) Surface Mining Control and Reclamation Act SMCRA ID No.'s S-311, S-351, and S-358; as well as amendments and Incidental Boundary Revisions (IBR's). The aquatic resources filled without authorization in addition to those proposed to be filled would total approximately 26.0 acres of open water, 5.48 acres of palustrine emergent (PEM) wetlands, 24,638 linear feet of intermittent streams, and 74,225 linear feet of ephemeral streams. Once surface mining operations are completed, the area would be regraded to approximate original contours, covered with soil material and revegetated to the approved SMCRA post-mining land use.

The primary impacts to "waters of the U.S." would be associated with the mining through of wetlands, streams, and open waters. The surface facilities and activities necessary to support the mining operations would include construction of access and haul roads and installation of sediment ponds and diversion ditches for drainage control. All of the surface runoff from the areas disturbed by mining operations would pass through sediment ponds before entering tributaries to the West Fork White River.

Avoidance and Minimization Information: The coal reserves occur in four (4) separate seams. The size of the area to be disturbed to facilitate coal removal has been minimized to the greatest extent possible and mitigation is proposed to compensate for impacts. A total of 100,402 linear feet of ephemeral streams and 76,101 linear feet of intermittent streams would be avoided within the permit area. However, due to the dendritic pattern of the streams, location of the wetlands, the dissected topography, and the coal reserves within the project area, avoiding all ephemeral and intermittent streams and wetlands would eliminate surface mining as an option.

Compensatory Mitigation: The applicant would mitigate some unavoidable impacts by establishing a total of 26.0 acres of open water and 15.48 acres of palustrine forested (PFO) wetlands. This mitigation is proposed to compensate for all proposed future wetland losses and to partially compensate for after-the-fact losses of streams and wetlands. The wetlands would be established on-site and would be constructed immediately following any potential permit action on previously surface mined and reclaimed land. The wetlands would be planted with a variety of hard mast producing hardwood tree species as well as an herbaceous mix.

The applicant would also compensate for unavoidable impacts to streams through the establishment of 74,835 linear feet of stream both on-site and off-site following the mining and reclamation process. Of the total, 34,617 linear feet would be intermittent streams and 40,218 linear feet would be ephemeral streams. A portion of each of these restored stream types are for after-the-fact impacts. The proposed streams would employ natural stream channel design features including; forested riparian zones 100 feet wide (50 feet avg. on each side) on intermittent streams and 50 feet wide (25 feet avg. per side) on ephemeral streams. Stream mitigation for after-the-fact impacts would have increased forested riparian corridors of 200 feet wide on intermittent and 100 feet wide on ephemeral streams. The impacted streams were assessed utilizing EPA Rapid Bio Assessment (RBP) methodology as well as the Rosgen Stream Classification System. The proposed mitigation

streams would be Rosgen B, C, and E type streams that would replace and enhance the primary functions of the impacted streams. These functions include aquatic habitat and movement, water conveyance, sediment transport, water sources for terrestrial animals, and supporting the food web by organic material contribution. The Rosgen B type streams would contain step pool structures and would be utilized in areas of higher slopes in the upper headwater areas of the mitigation. Lower gradient areas of the mitigation would be constructed as Rosgen C and E type streams, which would include J-hooks, pools, log habitat structures and cross vane structures to stabilize the channels, lower velocities and create varied habitats in the form of riffles, runs, and pools.

At the end of the mitigation monitoring period, the applicant would use the Rosgen Classification of Natural Rivers methodology along with the U.S. Environmental Protection Agency's (USEPA) Rapid Bioassessment Protocol for Use in Wadable Streams and Rivers (RBP)(1999) to evaluate the quality of the mitigated waters in comparison to the impacted waters. The RBP assesses stream habitat based on ten (10) parameters. Each parameter is assigned a value of 0 to 20 or in some parameters, 0 to 10 for each bank of the stream. The condition category is divided into four (4) groups: poor, marginal, suboptimal, and optimal. An overall stream score of 0-50 would indicate poor habitat quality; 50-100 would indicate marginal; 100-150 would indicate suboptimal; and 150-200 would indicate optimal stream habitat quality. Overall stream condition should be referenced in different ecoregions to the best and poorest quality streams to determine relative stream quality. The post mine re-established streams would score a minimum of 70 for ephemeral reaches and 110 for intermittent reaches.

EXISTING CONDITIONS:

A total of 2656.7 acres of the proposed mine site has been mined prior to this permit evaluation and the Consent Agreement and Final Order (CAFO) with the USEPA. Within this acreage, a total of 53,507 linear feet of intermittent and ephemeral streams has been estimated to have been mined through. Given this information, it is nearly impossible to determine what quality of streams existed prior to the mining activities. However, utilizing best professional judgment and historical aerial photography, the stream reaches were predominantly channelized streams or constructed agricultural drains that exhibited little to no vegetated buffers and no natural channel pattern. Comparing these stream patterns with neighboring streams that have been assessed and remain in their existing state, the previously impacted streams likely had little in-stream habitat, and relatively poor water quality.

The existing streams on the project site were classified and evaluated by the applicant utilizing the above described RBP methodology. There are 39 streams which are proposed to be impacted on the project site. The lowest overall score was 60 and the highest overall score was 103. The majority of the streams assessed on site were in the marginal category. The assessed streams displayed a lack of epifaunal substrate, lack of riparian buffers, limited pool variability, and bank instability issues.

The 39 streams proposed to be impacted by the project were also assessed utilizing the

Rosgen classification system. Of the stream assessed, 31.9% of the stream reaches were classified as Rosgen "B" channel types; 1.4% of the stream reaches were classified as Rosgen "C" stream types; 3.2% of the stream reaches were classified as Rosgen "E" stream types; 9.3% of the stream reaches were classified as Rosgen "F" stream types; and 54.3% of the stream reaches were classified as Rosgen "G" stream types. The surveys indicated the majority of streams on-site had drastically altered physical characteristics as a result of agricultural practices within the watershed. Most of the channels had been straightened and lacked riparian corridors or had only narrow herbaceous buffers that allowed for more efficient row cropping. The majority of the streams are physically degraded channels exhibiting lack of structure, no access to floodplains, high entrenchment ratios, silt/clay substrates, lack of sinuosity and low width to depth ratios.

A total of 5 wetlands would be impacted as a result of the proposed project. Each of the 5 wetlands is PEM type wetlands that are comprised of more than 90% broad leaved cattail (Typha latifolia).

An off-site stream mitigation area will be located on property owned by the applicant. The off-site mitigation area is proposed to compensate for a portion of the after-the-fact impacts. The site is located in the Honey Creek-South Fork Patoka River Watershed (HUC 051202090702) adjacent to an unnamed tributary to the South Fork Patoka River. The mitigation site is currently being used for agricultural and forest land. Due to the agricultural activities, the site does not provide high value fish and wildlife habitat. The establishment of 3,000 linear feet of intermittent and 1,465 linear feet of ephemeral stream channel would improve habitat opportunities for aquatic organisms and the associated forested riparian areas would increase habitat opportunities for a variety of mammals and avian species.

2. Authority.

☐ Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. §403).
☒ Section 404 of the Clean Water Act (33 U.S.C. §1344).
☐ Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

3. Scope of Analysis.

a. NEPA.

(1) Factors.

(i) Whether or not the regulated activity comprises "merely a link" in a corridor type project.

The proposed project is a surface coal mine project which includes impacts to aquatic resources and upland areas over a 9864.6-acre area and an off-site mitigation area. This is not a corridor type project.

(ii) Whether there are aspects of the upland facility in the immediate vicinity of the regulated activity which affect the location and configuration of the regulated activity.

The project is a surface coal mine project which includes impacts to aquatic resources and upland areas over a 9864.6 acre permit area. Surface mining would be completed in a method which would necessitate the mining through of both upland and aquatic resources together to reach the underlying coal resources. Activities that occur in upland areas, such as additional surface mining, construction of haul road, and other attendant features do affect the location and configuration of the activities that occur within the regulated areas.

(iii) The extent to which the entire project will be within the Corps jurisdiction.

The NEPA scope of analysis includes jurisdictional "waters of the U.S." that would be filled, directly or indirectly, by the activities of this project and the immediately adjacent riparian corridor and the off-site mitigation area. The specific activities requiring authorization under Section 404 of the Clean Water Act (CWA) are the proposed discharges of fill material into 26.0 acres of open water, 5.48 acres of palustrine emergent (PEM) wetlands, 24,638 linear feet of intermittent streams, and 74,225 linear feet of ephemeral streams and the direct and secondary fills associated with the construction of temporary sediment control ponds. The scope of analysis excludes those upland areas that would be affected by the mine operations.

(iv) The extent of cumulative Federal control and responsibility.

To include the entire project beyond the waters of the U.S. and immediately adjacent riparian areas is not appropriate because the CWA does not provide the Corps legal authority to regulate surface coal mining activities beyond the limits of the waters of the U.S. Rather, overall surface coal mining operations are permitted by and regulated by the State of Indiana in accordance with SMCRA.

(2) Determined scope.

☒ Only within the footprint of the regulated activity within the delineated water and immediately adjacent riparian buffer.

☐ Over entire property.

The determined scope for the proposed activity is limited to those areas identified as "waters of the U.S." and their immediate riparian areas, along with the proposed off-site mitigation area. Upland areas on the mine site will be addressed through the SMCRA permitting process.

b. NHPA "Permit Area".

(1) Tests. Activities outside the waters of the United States ☒are/☐are not included

because all of the following tests ☒are/☐are not satisfied: Such activity ☐would/ ☒would not occur but for the authorization of the work or structures within the waters of the United States; Such activity ☒is/☐is not integrally related to the work or structures to be authorized within waters of the United States (or, conversely, the work or structures to be authorized must be essential to the completeness of the overall project or program); and Such activity ☒is/☐is not directly associated(first order impact) with the work or structures to be authorized.

(2) Determined scope.

The "action area" is "waters of the U.S." and their immediate riparian areas (approximately 100 feet), along with the proposed off-site mitigation area.

A broader scope, beyond the waters of the U.S. and the immediately adjacent riparian areas, and the off-site mitigation area is not appropriate because the CWA does not provide the Corps legal authority to regulate surface coal mining activities beyond the limits of the waters of the U.S. Rather, overall surface coal mining operations are permitted by and regulated under the SMCRA process. SMCRA is responsible for performing appropriate reviews for historical and cultural properties within the SMCRA permit boundary which includes those areas outside the "waters of the U.S."

c. ESA "Action Area".

(1) Action area means all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.

(2) Determined scope.

The ESA "action area" is based on the species or their critical habitat. The species of concern is the Indiana bat (Myotis sodalis). The "action area" for this species includes the stream and riparian corridors, wetlands, and adjacent woodlands that would be impacted directly or indirectly by the discharge of dredged or fill material associated with the mining activities. The SMCRA is responsible for performing appropriate reviews for federally listed species or designated critical habitat within the SMCRA permit boundary which includes those areas outside the "waters of the U.S."

d. Public notice comments. ☐ NA

(1) The public also provided comments at ☐public hearing, ☐public meeting, and/or ☐

(2) Commentors and issues raised.

Name	Issue
USEPA	November 30, 2011 letter: The agency noted that the Cumulative Impacts Assessment provided by the applicant did not discuss the context of the unpermitted activities on streams in the watershed. They also noted that the mitigation plan for future impacts as well as the adaptive management plan should be revised to be consistent with the mitigation plan for after-the-fact impacts negotiated with the USEPA. This letter is available in the project file for further review.
USFWS	December 2, 2011 letter: The USFWS indicated that they had reviewed these surface mining permit applications for the Freelandville Complex between 1994 and 2010 and had provided minimal comments previously due to the minimal wildlife habitat present and due to the fact that some of the amendments contained large acreages of underground mine shadow area. They also stated that because the overall quality of the proposed resources was low, the mitigation concept appears adequate. Finally, they recommended that to prevent any incidental take of the Indiana Bat (Myotis sodalis), the applicant shall avoid tree clearing along waterways and adjacent forested areas during the Indiana Bat reproductive season from April 1-September 30. They further recommended restoring forested drainage ways in a network that reflects pre-mining conditions and that the size and diversity of the post mining forested areas should be no less than the pre-mining conditions. This letter is available in the project file for further review.
Indiana Department of Natural Resources	November 18, 2011 letter: The Indiana Department of Natural Resources (IDNR) stated that prior to any disturbance, a coal mine is required to identify any cultural resources located within the proposed permit boundaries as well as those within a 1000 foot buffer around those boundaries. They continued by stating that all known cultural resources are addressed by documenting and evaluating these resources, determining eligibility for listing within the National Register of Historic Places, and developing a mitigation plan or providing an avoidance plan. They further indicated that these steps may be undertaken in segments after a mining permit is issued but noted that bond release cannot be accepted and no mining related disturbances can be permitted in until all steps in this process have been completed. They also stated that

Name	Issue
	any issues related to specific archaeological, prehistoric, or historic sites or structures which might be affected by the proposed work either have been or will be resolved as a result of the coal mine permitting and bonding process. Finally, they noted that any area subject to Section 404 of the CWA that is to be utilized for mitigation or other purposes that is contained within the Section 404 permit that is not intended to be permitted and affected in accordance with SMCRA must undergo review prior to disturbance to determine if archaeological, prehistoric, or historic sites or structures might be affected by the proposed work.

(3) Site ☒was/☐was not visited by the Corps to obtain information in addition to delineating jurisdiction.

Site visits were conducted for this project on Feb. 2, 2007, Feb. 28, 2008, May 27, 2009, Aug.13, 2009, Feb. 1, 2011, and Mar. 22, 2011 to verify the applicant's wetland and stream delineation and to document and administer Cease and Desist Orders on two occasions.

(4) Issues identified by the Corps.

The applicant proposed out-of-kind mitigation as compensation for the deficit of in-kind stream mitigation. This issue is further discussed in Section 7(e)(3), below.

(5) Issues/comments forwarded to the applicant. ☐NA/☒Yes.

(6) Applicant replied/provided views. ☐NA/☒Yes.

The applicant sent the Corps responses to the comments from the USEPA in a letter dated Dec. 9, 2011. Issues related to cultural resources were coordinated through the Corps' archaeologist and through the IHPA and IDNR.

(7) The following comments are not discussed further in this document as they are outside the Corps purview. ☒ NA/☐ Yes

4. Alternatives Analysis.

a. Basic and Overall Project Purpose (as stated by applicant and independent definition by Corps).
☒Same as Project Purpose in Paragraph 1.
☐Revised

b. Water Dependency Determination:

☒Same as in Paragraph 1.
☐Revised

c. Applicant preferred alternative site and site configuration.
☒Same as Project Description in Paragraph 1.
☐Revised

Criteria. Activities were evaluated based on their ability to meet the purpose and need of the project, impacts on aquatic resources, and practicability.

Issue	Measurement and/or constraint
Wetlands	Acres of direct impact
Streams	Linear feet of direct impact
Open Waters	Acres of direct impact
Purpose and Need	Whether the purpose and need are satisfied
Practicability and Safety	Costs and logistics; Safety

d. Off-site locations and configuration(s) for each. (e.g. alternatives located on property not currently owned by the applicant are not practicable under the Section 404(b)(1) Guidelines as this project is the construction or expansion of a single family home and attendant features, such as a driveway, garage, storage shed, or septic field; or the construction or expansion of a barn or other farm building; or the expansion of a small business facility; and involves discharges of dredged or fill material less than two acres into jurisdictional wetlands.)

Off-site locations and configurations

Description	Comparison to criteria
Off-site alternative locations	This would require the applicant to move the operation to another area resulting in impacts similar to that of the preferred alternative. Moving the proposed operations area to another location could result in greater environmental disturbance and impacts to "waters of the U.S." if the alternate location had more jurisdictional waters as compared to the site of the preferred alternative. Given the fact that an existing underground mining facility as well as a coal processing plant is within the mining boundary, a new location would result in greater environmental impacts because additional disturbance would be required to construct infrastructure necessary to support the mining operation. Moving the operation to another location is dependent on the presence of mineable coal reserves. Underlying geology makes it economically viable to construct the mining facility at the proposed location and will yield coal

Description	Comparison to criteria
	with qualities demanded by electric power utilities. In addition to these advantages, the land and mineral rights were available for purchase by Triad Mining, making the Freelandville Complex site the most viable of the locations considered by the applicant.

e. (☒ NA) Site selected for further analysis and why.

f. On-site configurations.

Description	Comparison to criteria
Construction of surface coal mining facility and the subsequent removal of coal.	The Freelandville Complex contains significant economically recoverable coal reserves. The use of surface mining for coal recovery at the Freelandville Complex would result in mineral resource recovery of 3.5 million tons. The procurement of this resource is very important to landowners, mineral owners and the local economy. The proposed future surface mining areas were selected to minimize surface impacts and impacts to jurisdictional Waters of the United States and maximize the coal extraction ratio of the site. As impacts were generally similar for alternate facility locations examined, the proposed site was most advantageous because it would limit impacts to a confined area within the headwaters of two watersheds. Conditions at the Freelandville Complex site allowed for configuration of the mine boundary to avoid impacts to several jurisdictional streams and wetlands. Over half of the proposed 9864.6 acres that is being reviewed under this evaluation has already been completed prior to this request for a DA authorization. Since the majority of impacts are already completed and a coal processing plant is in place and operational, it would not be economically or environmentally viable to significantly alter the on-site configuration. Overall, the proposed facility location and configuration is believed to be the least environmentally invasive option resulting in the most cost-effective recovery of the natural resource. Given a yield of 2,260 kWh per ton for coal from the site, this option will provide recovery of nearly 2.26 billion kWh of energy per million tons of coal

Description	Comparison to criteria
	produced while also providing significant economic benefits to the region. The facility will accomplish this while maximizing public safety and minimizing its environmental footprint.
Utilize underground mining instead of surface mining	Alternatives to surface mining were considered and utilized where possible at the Freelandville Complex. The applicant has successfully used underground mining methods in parts of the permit area (Shadow Area). In other portions of the site, alternatives to surface mining were rejected due to potential environmental impacts, risks to human health and safety. The Springfield Coal seam has sufficient thickness to be effectively recovered by underground mining, but in portions of the site, the stratigraphic position of the coal seam eliminates this method. The coal seam is too shallow to employ underground methods in areas of lower elevation. The relatively shallow overburden depth and other geologic conditions would result in roof instability, creating unsafe conditions for miners and potential subsidence problems on the surface. Potential de-watering of streams and wetlands could result in permanent loss of functions and values of these resources, while impacts associated with surface mining would present a temporal loss of resource functions and values, with a planned ecological lift over baseline conditions once mitigation is completed.
Utilize auger mining or highwall mining instead of surface mining	Consideration was given to auger mining but was rejected due to poor recovery, relative to the potential environmental impact and effort involved. Digging a single pit the length of the property and auger mining the remaining reserves would result in disturbance of at least 20% of the site while only recovering 20% of the yield expected from surface mining. This recovery ratio was considered unacceptable for the associated impacts to jurisdictional Waters of the United States and capital costs incurred.

Description	Comparison to criteria
	Highwall mining from an excavated pit (or trench) would result in approximately 45-60% recovery of the resource and would be similar to the extraction of underground mining. The loss of valuable fuel resource is unacceptable to this applicant. Again, the shallow overburden could lead to potential subsidence problems on the surface. Subsidence of areas overlying the highwall mined areas could lead to potential de-watering of streams and wetlands and also result in permanent loss of habitat functions and other ecosystems services rendered by these resources.
Utilize pod mining instead of surface mining	This mining method would involve excavation of smaller pits in between the aquatic resources. It would not be feasible because mining costs would more than double while coal recovery would diminish dramatically. Furthermore, the aquatic resources are interspersed in such a dendritic pattern, that any excavated pit could not possibly avoid impacting aquatic resources. Also, this type of mining could remove groundwater and result in impacts to some streams. Each pit would have to be excavated to the lowest coal seam with lay backs on all sides to ensure safe operating conditions. Additional lay backs would be needed to allow for construction of separate diversion and sediment basins for each pod area. The overburden from each pit would have to be stockpiled and then re-deposited into the pit after coal removal, as opposed to conventional surface mining where pits advance continuously with overburden being deposited into the previous pit. Coal recovery would be lost under each aquatic resource, the related pit and drainage control lay back areas, and overburden stockpile areas. The extra costs associated with these factors, coupled with less recovery of the resource, eliminates pod mining as an option.

g. Other alternatives not requiring a permit, including No Action.

Description	Comparison to criteria
No Action	This alternative would result in no new impacts to "waters of the U.S." The area would likely continue to have the same land use and water quality would continue to be degraded by agricultural land uses. The no-action alternative would not allow the applicant to recover the coal at the Freelandville Complex in the most effective manner.

Description	Comparison to criteria
	The applicant cannot economically surface mine without affecting waters of the U.S. The applicant has already invested in excess of ten million dollars ($10,000,000) in capital in the area. The local economy would be adversely impacted by the loss of coal production. By surface mining in the proposed Freelandville Complex Section 404 permit area the coal owners will realize proceeds from an additional 3.5 million tons of coal, while preserving jobs for surface mine employees for an additional 12 years. Approximately fifty direct mining jobs as well as a large number of indirect jobs supporting the facility will also be lost. The loss of these skilled positions would represent a serious blow to the employment of the Knox and Sullivan County, Indiana workforce. Additional revenue lost to the state and county is an estimated three million dollars in property tax, tax on wages and other State and local levies paid over the 12 year duration of surface mine production at the facility. The no-action on-site alternative considered options to develop the facility at its current location while avoiding the discharge of dredged or fill material into jurisdictional Waters of the United States. Numerous design alternatives were considered, but due to the geometric configuration of the subject parcel and location of jurisdictional waters, a functional design for the surface mining facility that did not discharge dredge or fill material could not be achieved.

h. Alternatives not practicable or reasonable.

- Moving the project to a new location
- The sole use of alternative mining methods, such as auger mining, pod mining, or underground mining
- Changing the mine operation configuration to further avoid waters of the U.S.
- No Action

i. Least environmentally damaging practicable alternative.

The preferred alternative, conventional truck-shovel surface mining method, mining multiple seams, is considered the least environmentally damaging practicable alternative for the majority of the proposed site. The applicant is utilizing the underground mining option in those areas that provide a structural geology to support safe roof conditions, where the overburden to seam ratio is very high, and where the

coal seam is thick enough to feasibly mine it. The majority of the "waters of the U.S." which would be impacted by the proposed surface mining operations, have experienced previous impacts due to agricultural practices within the watersheds and are not considered high quality resources. It is anticipated that the mitigation efforts would compensate for these losses.

5. Evaluation of the 404(b)(1) Guidelines. (☐NA)

a. Factual determinations.

Physical Substrate. ☐ See Existing Conditions, paragraph 1 ☒ The substrate of the streams and wetlands to be directly impacted would be permanently filled with soil from the surface mining operation. These permanent losses of substrate at the project site would be mitigated by the construction of streams and wetlands on-site, and additional streams at an off-site location. The existing substrates on this site have been influenced by the parent material provided for in the geology of the site. The pre-mine assessment determined that the predominant substrate consisted of silt and clay.
Water circulation, fluctuation, and salinity. ☐ Addressed in the Water Quality Certification. ☒ The Section 401 Water Quality Certification for this project, referred to as Indiana Department of Environmental Management (IDEM) ID No. 2011-579-42-DDC-A was issued on March 7, 2012. While the drainage and circulation pattern on the project site would change, water leaving the site would be intercepted by existing streams and/or diversion ditches, and would flow through National Pollutant Discharge Elimination System (NPDES) permitted sediment basins before leaving the property. The sediment basins would also serve as temporary storage which would minimize the number of flash events entering downstream waters from the project site.
Suspended particulate/turbidity. ☐ Turbidity controls in Water Quality Certification. ☒ The Section 401 Water Quality Certification for this project, referred to as IDEM ID No. 2011-579-42-DDC-A was issued on March 7, 2012. As the mining operation advances, it is expected that there would be an increase of suspended particulates and turbidity in the on-site downstream waters. This would be due to sedimentation resulting from runoff from the disturbed soils, which was identified in the project description as a secondary impact. Water leaving the site would be intercepted by existing streams or diversion ditches, and would flow through NPDES permitted sediment basins prior to leaving the property. This would allow a predominance of sediment and other particulates to fall out of suspension before being carried to downstream waters. Sediment basins would be regularly maintained by the mine operator.

Contaminant availability. ☐ General Condition requires clean fill. ☒ The fill associated with impacts of this project would be the soil material that would be removed and stockpiled for reclamation use, as well as the general movement of fill material during construction activities associated with the mining operation. Additionally, constraints are available to reduce contamination to acceptable levels within the mine site and fill material would be placed and stabilized in a manner that possible contaminants in the material would not be moved by forces of nature or otherwise in a manner that is damaging to the environment outside the disposal area. These constraints include the placement of sediment basins at the downstream reaches subject to and permitted under the NPDES. Therefore, in accordance with 40 CFR 230.60(d), no chemical or biological testing is required to make the factual determination for this fill material.
Aquatic ecosystem and organism. ☒ Wetland/wildlife evaluations, paragraphs 5, 6, 7 & 8. ☐
Proposed disposal site. ☒ Public interest, paragraph 7. ☐
Cumulative effects on the aquatic ecosystem. ☒ See Paragraph 7.e. ☐
Secondary effects on the aquatic ecosystem. ☒ See Paragraph 7.e. ☐

b. Restrictions on discharges (230.10).

(1) It ☒has/☐has not been demonstrated that there are no practicable nor less damaging alternatives which could satisfy the project's basic purpose. The activity ☒is/☐is not located in a special aquatic site (wetlands, sanctuaries, and refuges, mudflats, vegetated shallows, coral reefs, riffle & pool complexes). The activity ☐does/☒does not need to be located in a special aquatic site to fulfill its basic purpose.

(2) The proposed activity ☐does/☒does not violate applicable State water quality standards or Section 307 prohibitions or effluent standards (☐based on information from the certifying agency that the Corps could proceed with a provisional determination). The proposed activity ☐does/☒does not jeopardize the continued existence of federally listed threatened or endangered species or affects their critical habitat. The proposed activity ☐does/☒does not violate the requirements of a federally designate marine sanctuary.

(3) The activity ☐will/☒will not cause or contribute to significant degradation of waters of the United States, including adverse effects on human health; life

stages of aquatic organisms' ecosystem diversity, productivity and stability; and recreation, esthetic, and economic values.

(4) Appropriate and practicable steps ☒have/☐have not been taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem (see Paragraph 8 for description of mitigative actions).

6. Public Interest Review: All public interest factors have been reviewed as summarized here. Both cumulative and secondary impacts on the public interest were considered. Public interest factors that have had additional information relevant to the decision are discussed in number 7.

+ Beneficial effect
0 Negligible effect
- Adverse effect
M Neutral as result of mitigative action

+	0	-	M	
☐	☒	☐	☐	Conservation.
☒	☐	☐	☐	Economics.
☐	☐	☐	☒	Aesthetics.
☐	☐	☐	☒	General environmental concerns.
☒	☐	☐	☐	Wetlands.
☐	☒	☐	☐	Historic properties.
☒	☐	☐	☐	Fish and wildlife values
☐	☒	☐	☐	Flood hazards.
☐	☒	☐	☐	Floodplain values.
☐	☒	☐	☐	Land use.
☐	☐	☐	☐	Navigation.
☐	☒	☐	☐	Shore erosion and accretion.
☐	☒	☐	☐	Recreation.
☐	☐	☐	☐	Water supply and conservation.
☐	☐	☐	☒	Water quality.
☒	☐	☐	☐	Energy needs.
☐	☒	☐	☐	Safety.
☐	☒	☐	☐	Food and fiber production.
☒	☐	☐	☐	Mineral needs.
☐	☒	☐	☐	Considerations of property ownership.
☐	☒	☐	☐	Needs and welfare of the people.

7. Effects, policies and other laws.

a. ☐NA

Public Interest Factors. *(add factors that are relevant to specific project that you checked in*

number 6 above and add a discussion of that factor)

Factor	Discussion
Economics	As a general matter, economics is outside the scope of this analysis. However, the applicant would have a financial gain realized if the proposed project is permitted, which would allow him to maximize the land use under his control. The anticipated work force required for the construction and operation of the proposed activity is fifty direct mining jobs as well as a large number of indirect jobs. The future impacts of the mine would supply an additional 3.5 million tons of coal valued at $122,500,000.00 which would provide approximately 2.26 billion kWh of energy per million tons of coal while also providing significant economic benefits to the region**.** The proposed project if authorized, would preserve jobs for the existing surface mine employees for an additional 12 years. The loss of these skilled positions would represent a serious blow to the employment of the Knox County, Indiana workforce. Additional revenue generated to the state and county is an estimated three million dollars in property tax, tax on wages and other State and local levies paid over the 12 year duration of surface mine production at the facility. The negative effects to the proposed project include the temporal losses of cropland which is the predominant land use on the site. However, following mining and reclamation, all prime farmland soils must be put back and production must be equal to or greater than pre-mine over a series of years. This ensures the food production and economic returns will continue into the future.
Aesthetics	Changes in the aesthetics of a project site being adverse or an improvement are often a matter of individual judgment. In this case, the aesthetic quality would decrease during the clearing, mining and reclaiming proposed by this project. However, upon completion of the project the aesthetic quality should slowly return to normal throughout most of the project as vegetation within the proposed wetlands and riparian buffers matures. Additionally, the off-site stream mitigation within the Patoka River Watershed would establish 3000 linear feet of intermittent and 1468 linear feet of ephemeral streams to partially compensate for the after-the-fact impacts to streams. The streams would utilize natural stream channel design, pattern, profile, and dimensions to enhance the overall aesthetics of the project area. Also, the forested riparian protection zone for the streams would be 25 feet either side of ephemeral streams (50 feet total) and 50 feet either side of intermittent streams (100 feet total).
	This project requires a large area of land to be temporarily disturbed. This raises a number of environmental concerns, including soil erosion, dust, noise, water pollution, and impacts on the biodiversity. Steps have been taken to minimize those impacts. In the SMCRA permit, the State of Indiana has implemented pollution control measures which include an

Factor	Discussion
General Environmental Concerns	approved 401 CWA water quality permit, a 402 CWA permit, and a Clean Air permit for fugitive dust. Also, SMCRA has required the applicant to dispose of any toxic forming overburden and cover with a minimum of four feet of non-toxic material. The SMCRA permit requires similar land uses be restored to AOC. This includes forest, pasture, open water, agriculture and wildlife areas. With planting requirements, stabilizing the soil and using Best Management Practices (BMP), erosion should be controlled. The stream and wetland mitigation would also be constructed with BMP's to prevent erosion. The use of sediment basins should prevent off site water quality issues. By implementing these pollution control measures, monitoring the effects of mining, and rehabilitating mined areas, general environmental concerns should be minimized.
Fish and Wildlife Values	The project area has been intensely modified for agricultural purposes and has limited existing fish and wildlife habitat. This limited habitat was demonstrated in the poor and marginal habitat scores for EPA RBP assessed streams and in the poor category of the fish and macroinvertebrate IBI's. The proposed mitigation measures and the creation of stable streams with riparian buffers would improve the quality of the habitat available for fish and wildlife.
Wetlands	The proposed project would permanently impact 5.48 acres of PEM wetlands. The mitigation site for the wetland impacts will be located on-site and will occur concurrent with the advance of the mining disturbance. The mitigation sites are on property owned by Triad Mining, Inc. or controlled by surface owners who are compliant with having a deed restriction imposed upon the mitigation area. The wetland mitigation sites are located in Knox County, Indiana within the Pollard Ditch-Wabash River Watershed (HUC 051202020801), the same as the majority of the proposed impacts. The applicant proposes to mitigate the loss of "waters of the U.S." by restoring a total of 15.48 acres of PFO wetlands on-site. Approximately 5.48 acres is to compensate for future impacts to wetlands while the remaining 10.0 acres of PFO wetlands would compensate for a portion of the after-the-fact mining of streams on the project site.
Water Quality	33 CFR 320.4(d) provides that a state's certification of compliance with applicable effluent limitations and water quality standards will be conclusive with respect to water quality considerations unless the USEPA advises the District Engineer of other water quality aspects that should be examined. USEPA has not indicated other water quality aspects that should be taken into consideration for this project. Additionally, the CWA assigns responsibility for control of non-point sources of pollution to the states. The Section 401 Water Quality Certification was granted by IDEM for this project indicating compliance with the state water quality standards. The applicant also has a general permit by rule in accordance with Section 402 CWA, NPDES, from the

Factor	Discussion
	state of Indiana which requires quantitative analytical data identifying the types of pollutants present in the mine's effluent. The permit by rule also sets forth the conditions and effluent limitations under which the mine may make a discharge. The mine plan utilizes specific mining methods (open pit and haul back) to maximize coal extraction while minimizing impacts to waters of the U.S. In general, the disturbance of soils, unconsolidated deposits and the underlying rock substrate would most likely result in a temporary increase in water conductivity (including suspended metals) as well as other measurable water quality parameters. However, the specific level of these parameters would be limited through the Section 402, NPDES program. The proposed mitigation plan incorporates best management practices to minimize impairments to the watershed. The reclamation process would dispose of any toxic forming overburden deeper in the open pits and would cover the reclamation and mitigation areas with a specified thickness of mostly A and B soil horizons. The areas would be graded and planted with specified vegetation to stabilize the disturbed areas. The use of sediment basins and final cut impoundments would be utilized to ensure 402 NPDES limitations are met. The stream and wetland mitigation areas would be similarly constructed using best management practices to stabilize the areas to prevent further degradation. In-stream water quality sampling would be included in the mitigation monitoring to assess water quality parameters, such as temperature, TDS, pH, total iron, and total manganese. This sampling protocol would provide sufficient monitoring of water quality trends in the constructed aquatic resources to demonstrate if there are improvements to the water quality.
Energy Needs	This mine is a single seam surface and highwall coal mine with a high quality economically feasible coal reserve consisting of approximately 3.5 million tons of recoverable coal. With current technology, this would provide approximately 2.26 billion kWh of electricity. The coal produced from this mine operation would become part of a power generation supply. Less than half of the energy in this country and 95% of the energy in Indiana is generated by coal-fired power plants. Only about half the coal Indiana uses for power generation is obtained in state. Until other technologies are more widely available, continuation of existing mines and development of new coal mining operations is necessary in order to supply the nation's as well as the state's power generating facilities.
Mineral Needs	Approximately 50% of the coal mined in Indiana is shipped to other states and other countries to be used to generate electricity. The current surface mining operation for the Triad Mining, Freelandville Complex contains approximately 3.5 million tons of marketable coal. Until other

Factor	Discussion
	technologies are more widely available, continuation of existing mines and development of new coal mining operations is necessary in order to supply the nation's power generating facilities.

b. Endangered Species Act. ☐ NA

The proposed project:

(1) Will not affect these threatened or endangered species:
☐Any/☐

(2) May affect, but is not likely to adversely affect:
Species: ☒ Endangered Indiana bat (*Myotis sodalis*).

This proposed project has been identified by the USFWS as having potential habitat for the federally-listed Indiana bat. If the applicant adheres to tree removal restrictions (no removal of trees from April 1 – September 30), the project is not likely to adversely affect the Indiana bat.

(3) ☐Will/☒Will not adversely modify designated critical habitat. Explain: There is no designated critical habitat within the project area.

(4) ☐Is/☒Is not likely to jeopardize the continued existence of the Indiana bat.
Explain: See Above

(5) The Services ☒concurred/☐provided a Biological Opinion(s). *Explain.*

c. Essential Fish Habitat. Adverse impacts to Essential Fish Habitat ☐will/☒will not result from the proposed project. Explain. No Essential Fish Habitat as overseen by National Oceanic and Atmospheric Administration (NOAA) is present at this site.

d. Historic Properties. The proposed project ☐will/☒will not have any affect on any sites listed, or eligible for listing, in the National Register of Historic Places, or otherwise of national, state, or local significance based on ☒letter from SHPO/☒ Corps Archaeologist. Explain.

Prior to any mine undertakings and any bond acceptance by IDNR, all historic properties or archaeological sites listed or potentially eligible for listing on the National Register of Historic Properties must be given clearance by the IDNR/ Division of Reclamation (DOR). There have been no historic property issues either identified to this office or brought to our attention on the proposed mine project area.

The Corps reviewed the cultural resources information regarding the off-site mitigation area and made a determination of No Historic Properties Present. Therefore, in accordance with 36 C.F.R. 800.4(d)(1); 33 C.F.R. 325, Appendix

C(7)(b); and the Interim Guidance issued by the U.S. Army Corps of Engineers on April 25, 2005, the proposed mitigation would have no effect on historic properties.

This finding was submitted to the Indiana Division of Historic Preservation and Archaeology (DHPA) on March 1, 2012. In a response, dated April 3, 2012, the DHPA concurred with the Corps' finding.

e. Cumulative & Secondary Impacts. The geographic area for this assessment is the West Fork White River 8-digit HUC watershed (05120202).

(1) Baseline and discussion. Historically, the mostly level upland portions and gently sloping areas of Sullivan and Knox Counties were cleared of trees and intensively farmed. The steeper hillside ground has also been extensively cleared and historically used as pasture land and hayland. The flat bottomlands not subject to severe summer time flooding were also cleared of trees and are now intensively row cropped. Lower elevation bottomland areas subject to very frequent flooding during the growing season may have been left as forest. The remaining bottomland forested areas are the current location of the highest quality remaining wetlands.

Underground coal mining is reported within the State of Indiana starting in the 1830's. Significant mined tonnage and mine production records appear in the1880's. Underground production increased from the 1880's and peaked approximately in 1916 with decline afterward until the start of World War II. Underground production rose during the War and then had a steady decline until the mid-1970's when only one or two underground mines operated within the state of Indiana. Underground mining has rebounded from the mid-1990's to the present. Surface coal mining is reported to have started within the State in mid-1910's and increased through the World War II years with a production decline starting in the 1950's through mid-1960's. Surface mine production increased through the 1970's and peaked in the 1980's with a slow decline as surface mine reserves have been depleted. In the general area of the Freelandville Complex, underground mining is reported starting in 1880's and surface coal mining is reported starting in the late 1940's.

The majority of the 9864.6 acres which have been and are proposed to be surface mined would occur in the White River – Pollard Ditch Watershed (HUC 051202020801). This HUC has a watershed area of 17,866 acres. The landuses in this watershed currently are as follows: Agriculture 81.8%, Urban Land 3.7%, Forest 11%, Water 0.7%, and the remainder in other uses. To date, 34.25% of this watershed has been or is currently being surface mined. The project, if approved, would impact another 13.25% of this watershed through surface mining activities.

The remaining watershed which would be impacted as a result of the proposed project is the Pickel Ditch-Indiana Creek Watershed (HUC 051202020802). This HUC has a drainage area of 19,597 acres. The landuses in this watershed currently are as follows: Agriculture 80.7%, Urban Land 4.8%, Forest 11.5%, Water 0.6%,

and the remainder in other uses. To date, approximately 5% of the watershed has been surface mined in the past. The project, if approved would impact an additional 60.7 acres (0.3%) within the watershed as a result of surface mining activities.

Baseline monitoring of surface water in the major intermittent tributaries to Pollard Ditch has been completed prior to the start of Triad Mining's Freelandville Pit surface coal mine. Both surface and ground water baseline monitoring has been completed as part of the SMCRA permitting process by the IDNR Division of Reclamation. Baseline and mine compliance monitoring of locations in Pollard Ditch indicate elevated levels of sulfates, iron, manganese and total dissolved solids in the surface runoff.

There are no known state listed CWA Section 303(d) impaired water bodies within permit area. The Pollard Ditch drainage basin has historically (for more than 100 years) been heavily impacted by agricultural and coal mining activities and will continue to be impacted by these activities. Intensive row cropping is very prevalent in this part of the State of Indiana and many local streams have been extensively channelized (See impacts maps for the mine pits in the administrative file). Pollard Ditch and the majority of its tributary system has been channelized and deepened over the last 100 years to allow the fertile flat bottomland to be placed into row crop production. Pollard Ditch North of State Route 58 has practically no riparian vegetation for a 2.5 mile reach length to the north. Very few local farmers maintain any grass buffer zones or riparian vegetation buffer zones next to streams. Sedimentation of local streams is a common problem and many channelized farm streams are dredged of sediment on a regular basis resulting in elevated banks on one or both sides of the stream channels.

Proposed wetland mitigation areas consists of several bottomland parcels adjacent to channelized streams with little or no riparian vegetation. The wetland locations will replace row crop vegetation with diverse wetland forest vegetation. The quality and quantity of wildlife habitat will increase significantly over that available in row crop areas. As a post-mine ground water table is established in the mine spoil and it reaches the post-mine ground surface, restored post-mine streams will receive the ground water. Restored post-mine streams will typically have longer base flow that extends into dry periods of late summer and early fall. Surface runoff stored in post-mine impoundments will recharge the mine spoil and should help to maintain base flows to local streams.

The projection is that authorizations in both the 8-digit and 12-digit HUC watersheds will continue ☒at the current rate/☐ increase/☐ because this area is relatively populated, has minable coal reserves, and has active agricultural operations. Natural resource issues of particular concern [from Corps & non-Corps activities] are the amount of impacts resulting from management of private property, coal mining activities, and agriculture.

(2) Context. The proposed project is ☒typical of /☐a precedent /☐very large

compared to /☐ other mining activities in the watershed. Development similar to the proposal has occurred in this watershed since the 1800's. Future conditions are expected to be similar to current conditions. Besides Corps authorized projects, other activities include agriculture, coal mining (underground and surface), and industrial facilities. Resulting natural resource changes and stresses include channelization of streams, loss of riparian areas, loss of habitat, and increased sedimentation. These resources are also being affected by individual management of private property, agriculture, coal mining (underground and surface), and industrial facilities. Key issues of concern in this watershed are the impacts of agriculture and mining on the landscape.

(3) Mitigation and Monitoring. The proposed project would permanently impact 26.0 acres of open water, 5.48 acres of palustrine emergent (PEM) wetlands, 24,638 linear feet of intermittent streams, and 74,225 linear feet of ephemeral streams. The magnitude of the proposed effect is consistent with other watersheds located within the Illinois Basin coal field. Avoidance and minimization methods include those outlined above in this document. Compensatory mitigation, consisting of construction of off-site in-kind, on-site out-of-kind, and on-site in-kind as well as the monitoring described herein, would result in re-establishment of 26.0 acres of open water and 15.48 acres of palustrine forested (PFO) wetlands. The wetlands would be established on-site and would be constructed immediately following any potential permit action. The wetlands would be planted with a variety of hard mast producing hardwood tree species as well as an herbaceous mix.

The applicant would also compensate for unavoidable impacts to streams through the establishment of 74,835 linear feet of stream both on-site and off-site. Of the total, 34,617 linear feet would be intermittent streams and 40,218 linear feet would be ephemeral streams. A portion of each of these restored stream types are for after-the-fact impacts. The proposed streams would employ natural stream channel design features including; forested riparian zones 100 feet wide (50 feet avg. on each side) on intermittent streams and 50 feet wide (25 feet avg. per side) on ephemeral streams. Stream mitigation for after-the-fact impacts would have increased forested riparian corridors of 200 feet wide on intermittent and 100 feet wide on ephemeral streams.

The applicant has proposed to monitor the mitigation site bi-annually for a minimum of five (5) years, with monitoring reports being submitted on an annual basis. At the end of the 5-year monitoring period the applicant projects that there will be Rosgen "B", "C" and "E" channel types which will have RBP scores higher than pre-mine metrics with a score of 70 or higher for ephemeral reaches and 110 or higher for intermittent reaches. This would provide an overall habitat quality ecological lift from the pre-mine average scores of 62 and 102 respectively for ephemeral and intermittent streams.

The majority of the stream mitigation sites would be located within the Pollard Ditch/White River Watershed. However, a small portion would also occur within

the on-site Pickel Ditch/Indian Creek Watershed. Additionally, some stream mitigation is also proposed within the off-site Honey Creek / South Fork Patoka River Watershed (HUC 051202090702). The wetland mitigation site would be located on-site adjacent to Pollard Ditch and West Fork Pollard Ditch.

The proposed wetland mitigation sites are owned by Triad Mining, Inc. and are located within the Freelandville Mining Complex. The proposed mitigation would be in the same 12-digit HUC as the proposed wetland impacts. Additionally, some of the wetland mitigation would be undertaken to compensate for stream losses incurred prior to the penalty violation. The entire mitigation complex complete with forested stream riparian corridors would provide some forested blocks and forested travel corridors on a mine site that is currently nearly 90% farmland and pastureland and 6% forested. This would provide much needed food source, habitat, and cover for a variety of avian, mammalian, reptilian, and amphibian species where this is currently almost non-existent.

a. Corps Wetland Policy. Based on the public interest review herein, the beneficial effects of the project outweigh the detrimental impacts of the project.

b. (☐NA) Water Quality Certification under Section 401 of the Clean Water Act ☒has/☐has not yet been issued by ☐ /☒State/☐ Commonwealth.

c. Coastal Zone Management (CZM) consistency/permit: N/A
d. Other authorizations. On 30 November 2011, this project received SMCRA authorization from the IDNR.

e. (☒NA) Significant Issues of Overriding National Importance.

8. Compensation and other mitigation actions.

a. Compensatory Mitigation
(1) Is compensatory mitigation required? ☒ yes ☐ no [If "no," do not complete the rest of this section]

(2) Is the impact in the service area of an approved mitigation bank? ☐ yes ☒ no

(i) Does the mitigation bank have appropriate number and resource type of credits available? ☐ yes ☐ no

(3) Is the impact in the service area of an approved in-lieu fee program? ☐ yes ☒no

(i) Does the in-lieu fee program have appropriate number and resource type of credits available? ☐ yes ☐ no

(4) Check the selected compensatory mitigation option(s):
☐ mitigation bank credits
☐ in-lieu fee program credits
☐ permittee-responsible mitigation under a watershed approach
☒ permittee-responsible mitigation, on-site and in-kind
☒ permittee-responsible mitigation, off-site and out-of-kind

(5) If a selected compensatory mitigation option deviates from the order of the options presented in §332.3(b)(2)-(6), explain why the selected compensatory mitigation option is environmentally preferable. Address the criteria provided in §332.3(a)(1) (i.e., the likelihood for ecological success and sustainability, the location of the compensation site relative to the impact site and their significance within the watershed, and the costs of the compensatory mitigation project):

There are no mitigation banks or an in-lieu fee program available. Mitigation under the watershed approach could not be done because there are no watershed studies available.

The proposed mine site would impact approximately 9,864.6 acres predominantly in the Pollard Ditch/White River Watershed which is 17,866 acres in size. Taking the approach of not replacing the impacted streams and wetlands within the impacted watersheds would leave the watershed in a degraded state and absent of a large percentage of its existing aquatic resources. Though the existing resources are largely degraded, they provide needed functions such as water conveyance, sediment and nutrient retention and processing, and aquifer recharge. The mitigation is also environmentally preferable because it would maintain the connectivity of the water resources within the watershed and would allow the streams to continue to contribute to downstream water resources.

Additionally, the proposed off-site stream establishment would provide similar functions to the Honey Creek/South Fork Patoka River Watershed which is also a heavily mine and agriculture influenced watershed.

(6) Other Mitigative Actions

9. General evaluation criteria under the public interest review. We considered the following within this document:

a. The relative extent of the public and private need for the proposed structure or work.

This and other similar projects that allow coal reserves to be mined for use on the commercial market meet energy needs, both public and private. The private needs are met with the applicant's ability to recover the coal reserves and to offer these reserves on the open market for profit. The public need is met because the coal produced would become part of the market supply for electric power generation facilities and other consumers. Less than half of the electricity generated in the United States and practically all of the regional electric power is generated by coal-fired facilities.

The anticipated workforce that would continue to work as a result of this existing mining operation would be 50 employees. There would be approximately 3.5 million tons of coal produced from the mine worth an estimated $122 million. The coal would produce over $3 million in tax revenue for the state and local governments. The continuation of this mine would be a significant financial benefit locally to Knox and Sullivan Counties, and on the larger scale to the State of Indiana and to the nation.

b. ☒There are no unresolved conflicts as to resource use.

c. The extent and permanence of the beneficial and/or detrimental effects, which the proposed work is likely to have on the public, and private uses to which the area is suited. ☒Detrimental impacts are expected to be minimal although they would be permanent in the construction area. The beneficial effects associated with utilization of the property would be permanent when considering the mitigation. The mitigation sites as previously described would provide habitat for aquatic organisms as well as support other terrestrial species by providing food and cover. The created streams would be designed to be more stable and less likely to experience erosion. As a result, off-site receiving streams would likely experience lower sediment and nutrient loads, lower water temperature regimes, and overall higher water quality.

The mitigation sites should support aquatic organisms as well as more diverse food sources and cover sites for various wildlife species. The proposed reclamation would leave the impact site with the potential to support similar uses to what is currently present. The site is privately owned and there are no approved public uses. Private uses are limited by the existing conditions from agricultural production and silviculture. Approximately 3262 acres of prime farmland would be temporarily removed from production if this project were to be approved. However, the same quantity of prime farmland would be returned via the post reclamation landscape. Additionally, the current land use of this geographic area is dominated by agriculture, so when viewed at a larger scale, this impact should be minimal.

10. Determinations.
    a. Public Hearing Request: ☒NA

☐ I have reviewed and evaluated the requests for a public hearing. There is sufficient information available to evaluate the proposed project; therefore, the requests for a public hearing are denied.

b. Section 176(c) of the Clean Air Act General Conformity Rule Review: The proposed permit action has been analyzed for conformity applicability pursuant to regulations implementing Section 176(c) of the Clean Air Act. It has been determined that the activities proposed under this permit will not exceed de minimis levels of direct or indirect emissions of a criteria pollutant or its precursors and are exempted by 40 CFR Part 93.153. Any later indirect emissions are generally not within the Corps' continuing program responsibility and generally cannot be practicably controlled by the Corps. For these reasons, a conformity determination is not required for this permit action.

c. Relevant Presidential Executive Orders.

(1) EO 13175, Consultation with Indian Tribes, Alaska Natives, and Native Hawaiians. ☒This action has no substantial direct effect on one or more Indian tribes.

(2) EO 11988, Floodplain Management. ☐Not in a floodplain. (☒Alternatives to location within the floodplain, minimization, and compensation of the effects were considered above.)

(3) EO 12898, Environmental Justice. In accordance with Title III of the Civil Right Act of 1964 and Executive Order 12898, it has been determined that the project would not directly or through contractual or other arrangements, use criteria, methods, or practices that discriminate on the basis of race, color, or national origin nor would it have a disproportionate effect on minority or low-income communities.

(4) EO 13112, Invasive Species.
☒There were no invasive species issues involved.
☐The evaluation above included invasive species concerns in the analysis of impacts at the project site and associated compensatory mitigation projects.
☒Through special conditions, the permittee will be required to control the introduction and spread of exotic species. The permittee will be required to comply with their mitigation plan which specifies control measures.

(5) EO 13212 and 13302, Energy Supply and Availability. ☐The project was not one that will increase the production, transmission, or conservation of energy, or strengthen pipeline safety. (☒The review was expedited and/or other actions were taken to the extent permitted by law and regulation to accelerate completion of this energy-related (including pipeline safety) project while maintaining safety, public health, and environmental protections.)

d. Finding of No Significant Impact (FONSI). Having reviewed the information provided by the applicant and all interested parties and an assessment of the environmental impacts, I find that this permit action will not have a significant impact on the quality of the human environment. Therefore, an Environmental Impact Statement will not be required.

e. Compliance with 404(b)(1) guidelines. ☐NA

Having completed the evaluation in paragraph 5, I have determined that the proposed discharge ☒complies/☐does not comply with the 404(b)(1) guidelines.

f. Public Interest Determination: I find that issuance of a Department of the Army permit ☒is not/☐is contrary to the public interest as properly conditioned.

In summary, I find that all administrative requirements have been met, the proposed project is environmentally sustainable, and that issuance of the permit, properly conditioned, would not be contrary to the public interest. Therefore, I have decided to issue the requested Department of the Army permit subject to all Standard Conditions and the following Special Conditions:

1. The permittee shall adhere to the stream and wetland mitigation plans as outlined in the applicant's final mitigation plan submittal with the revised date of May 14, 2012. Any modification to the mitigation plans or proposed mitigation locations is required to be submitted to this office prior to construction. Within six (6) months of completion of the mitigation construction, as-built plans documenting the patterns, profile and dimensions of the streams and wetlands shall be submitted to this office for review and approval.

2. The offsite mitigation construction work must be completed by the end of the 2013 growing season.

3. All of the mitigation shall be protected in perpetuity by having the respective property owner(s) on whose property the mitigation property is located execute a completed DECLARATION OF RESTRICTIVE COVENANTS, which shall be in the same form and contain the same terms as the DECLARATION OF RESTRICTIVE COVENANTS submitted on June 14, 2012. The permittee shall ensure that the approved DECLARATION OF RESTRICTIVE COVENANTS is recorded with the property deed on all these mitigation sites, within 60 days of mitigation construction completion per tract. In the event the permittee fails to provide a DECLARATION OF RESTRICTIVE COVENANTS that assures long term protection of the mitigation property or fails to ensure that the approved Declaration of Restrictive Covenant is properly executed and recorded, the permittee shall provide alternative mitigation acceptable to this office within ninety (90) days of notice of such failure from this office.

4. The permittee's responsibility to complete the required compensatory mitigation proposal as referenced in the above Special Conditions shall not be considered fulfilled until mitigation success has been demonstrated,

approved by this office, and written verification is received from the U. S. Army Corps of Engineers.

5. The permittee shall avoid tree clearing during the Indiana Bat reproductive season from April 1-September 30.

APPROVED BY:

_____ _____

James M. Townsend
Chief, Regulatory Branch
Operations Division

Date

Ricketts/OP-FW/rb/Triad Freelandville Dec
Townsend/OP-F
RECORD COPY